

# Carbon Financing Opportunities for US CMM Projects

October 29, 2008

PRESENTED TO  
CMOP

PRESENTED BY

Ben Patton

[3degreesinc.com](http://3degreesinc.com)

# 3Degrees

***We find high quality projects and bring to market Renewable Energy Certificates and Verified Emission Reductions from around the world.***

## **Renewable Energy Certificates**

Resale and Wholesale Sales  
of Renewable Energy  
Certificates

## **Globally Sourced Carbon Offsets**

Resale and Wholesale Sales  
of Verified Emission Reductions

## **Utility Green Pricing Programs**

Green Power Program Design  
and Management

## **Carbon Footprinting**

Calculation of the Bounds of  
Organizations' Carbon Profile

## **Regulatory Advisory**

Federal, Regional, and Local  
Renewable Energy and Climate  
Advisory Services

***2007 DOE Renewable Energy Marketer of the Year***



# Our Clients

**3Degrees is a proud supplier of renewable energy certificates and verified emission reductions to 200 business clients including:**

- 10 of the Top 25 Green Power Purchasers
- 30 Fortune 500 Challenge companies
- 30 Fortune/Global Fortune 500 companies
- 14 Climate Leaders



Coca-Cola, Johnson & Johnson, Gap Inc., Pepsi, NBC, IKEA, Staples, IBM, and over 200 other businesses and institutions...



# Our Projects

**3Degrees has sourced RECs and VERs from over 200 facilities across the United States and abroad, including from projects in Canada, Mexico, China, India, Brazil, and New Zealand.**

## Verified Emissions Reductions (Global)

- **Methane Abatement**
  - Coal mine methane
  - Agricultural/dairy methane
  - Landfill methane
- **Renewable Energy**
  - Wind
  - Other Renewables
- **Sustainable Forestry Management**

## Renewable Energy Certificates

- **Wind**
- **Geothermal**
- **Biomass** (combustion)
- **Dairy methane** (electrification)
- **Landfill methane** (electrification)
- **Low-impact hydro**



## 3Degrees' Top 10 Questions to Ask Your Provider When Considering Verified Emissions Reductions

1. Do you source offsets from **specific projects**?
2. Is the provider **transparent**?
3. Is the project third-party **verified**?
4. Does the project pass an “**Additionality**” test?
5. Are the greenhouse gas emission reductions **real, additional, verifiable, and permanent** reductions against a business-as-usual baseline?
6. What is the **timing** of the offset delivery?
7. Have the reductions been sold to **more than one buyer**?
8. Does the project create **additional benefits** beyond CO2 reduction?
9. Can the provider demonstrate clear, legal **ownership**?
10. Has the provider disclosed and addressed all **potential risks**?

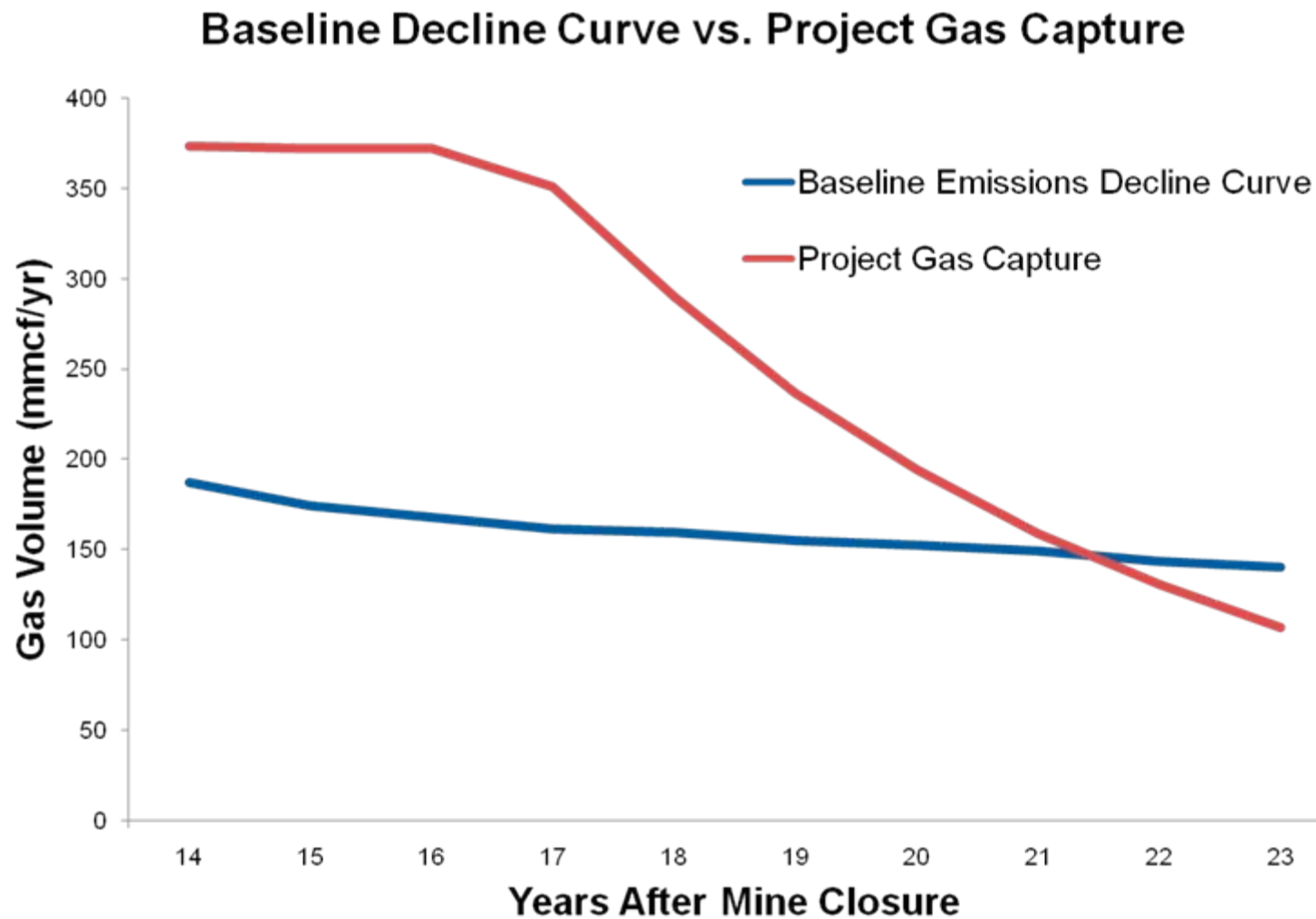


# Voluntary Offset Protocols

- Voluntary Carbon Standard (VCS)
  - New methodologies accepted through double Validation process.
- Chicago Climate Exchange (CCX)
  - Emission reductions awarded based on methane captured
- GE AES Greenhouse Gas Services
  - Emission reductions awarded based on methane captured
- Standards that do not accept Abandoned CMM
  - CDM
  - CCAR
  - RGGI
  - VER+
  - Gold Standard



# VER crediting schedule for Abandoned Mine Methane projects



## Tier 3 Approach in the 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 2, Chapter 4

- Mine Closure Date
- Methane Emission Rate at Closure
- Emission Factor (% of initial emission rate, for each year post closure).
  - Emissions data gathered from closed mines in the region
  - Coal Thickness
  - Mine Depth
  - Coal Permeability
  - Composition of the native coal bed gas



# ○ A Real, High-Quality, Additional, Third-Party Verified Carbon Reduction Project: Pennsylvania Retired Coal Mine Methane

## PROJECT LOCATION

Pennsylvania

## PROJECT TYPE

Retired Coal Mine  
Methane Capture &  
Use Project

## ONLINE DATE

MAY 2008

## ANNUAL EMISSION REDUCTIONS

Average 30,000  
mtCO<sub>2</sub>e / year

## VERIFICATION AND REGISTRATION

Voluntary Carbon  
Standard



## BASELINE METHODOLOGY

2006 IPCC Guidelines for GHG Inventories & EPA model for assessing emissions from abandoned coal mines in the U.S.

## PROJECT OVERVIEW

- Retired coal mines continue to emit harmful methane from the un-mined coal that remains underground. Methane is a potent GHG.
- The project captures gas at the retired “B” seam of coal in the Cambria 33 mine, which underlies 8,000 acres of land privately owned by a farmer who actively harvests hay and corn from nearby fields.
- There are no laws or regulations that require a closed mine to capture methane.



Bringing Climate Solutions Down To Earth™

Benjamin Patton  
SENIOR MANAGER, ORIGINATION

[bpattton@3degreesinc.com](mailto:bpattton@3degreesinc.com)

MOBILE 415.730.5715

OFFICE 415.674.4436

FAX 415.680.1561

YAHOO IM [bpattton\\_3d](#)

Presidio of San Francisco  
6 Funston Avenue  
San Francisco, CA 94129

